

APPENDIX A

EXAMPLE DATA COLLECTION FORM AND INSTRUCTIONS - BOILERS

This page is intentionally left blank.

EXAMPLE DATA COLLECTION FORM INSTRUCTIONS - BOILER

1. This form may be used as a work sheet to aid the plant engineer in collecting the information necessary to calculate emissions from boilers. The information requested on the form relates to the methods (described in Sections 3 and 4) for quantifying emissions. This form may also be used by the regulatory agency to assist in area-wide inventory preparation.
2. The completed forms should be maintained in a reference file by the plant engineer with other supporting documentation.
3. The information identified on these forms is needed to generate a complete emissions inventory. If the information requested does not apply to a particular boiler, write "NA" in the blank.
4. If you want to modify the form to better serve your needs, an electronic copy of the form may be obtained through the EIIP on the CHIEF system.
5. If rated capacity is not documented in MMBtu/hr, please enter the capacity in lb/hr steam produced, or other appropriate units of measure.
6. If hourly or monthly fuel use information is not available, enter the information in another unit (quarterly or yearly). Be sure to indicate on the form what the unit of measure is.
7. Use the comments field on the form to record all useful information that will allow your work to be reviewed and reconstructed.

EXAMPLE DATA COLLECTION FORM - BOILER**GENERAL INFORMATION**

Facility/Plant Name:

SIC Code:

SCC:

SCC Description:

Utility _____

Commercial _____

Industrial _____

Location:

County:

City:

State:

Plant Geographical Coordinates:

Latitude: _____

Longitude: _____

UTM Zone: _____

UTM Easting: _____

UTM Northing: _____

Contact Name:

Title:

Telephone Number:

Unit ID Number:

Permit Number:

| SOURCE INFORMATION | COMMENTS |
|---|----------|
| <u>Unit ID:</u> | |
| <u>Manufacturer:</u> | |
| <u>Date Installed:</u> | |
| <u>Rated Capacity (units):</u> | |
| <u>Maximum Heat Input (units):</u> | |
| <u>Fuel Type:</u> | |
| <u>Operating Schedule:</u> | |
| <u>Hours/Day:</u> | |
| <u>Days/Week:</u> | |
| <u>Weeks/Year:</u> | |
| <u>FUEL USE^a:</u> | |
| <u>Year:</u> | |
| <u>Maximum Hourly Fuel Use (units):</u> | |
| <u>Monthly Fuel Use (units):</u> | |
| <u>January:</u> | |
| <u>February:</u> | |
| <u>March:</u> | |
| <u>April:</u> | |
| <u>May:</u> | |
| <u>June:</u> | |
| <u>July:</u> | |
| <u>August:</u> | |
| <u>September:</u> | |
| <u>October:</u> | |
| <u>November:</u> | |
| <u>December:</u> | |
| <u>Total Annual Fuel Use (units):</u> | |

^a This form should be completed for each fuel type used.

FIRING CONFIGURATION (Check the appropriate type)

Tangential Fired Horizontally Fired Vertically Fired Pulverized Coal Fired

Dry Bottom Wet Bottom

Cyclone Furnace

Spreader Stoker Uncontrolled Controlled

Overfeed Stoker Uncontrolled Controlled

Underfeed Stoker Uncontrolled Controlled

Hand-fired Units

POLLUTION CONTROL EQUIPMENT (Enter control efficiency and source of information)

ESP:

Baghouse:

Wet Scrubber:

Dry Scrubber:

Spray Dryer:

Cyclone:

Other:

| SOURCE INFORMATION | COMMENTS |
|---|-----------------|
| <u>Unit ID:</u> | |
| <u>Manufacturer:</u> | |
| <u>Date Installed:</u> | |
| <u>Rated Capacity (units):</u> | |
| <u>Maximum Heat Input (units):</u> | |
| <u>Fuel Type:</u> | |
| <u>Operating Schedule:</u> | |
| <u>Hours/Day:</u> | |
| <u>Days/Week:</u> | |
| <u>Weeks/Year:</u> | |
| FUEL USE^a: | |
| <u>Year:</u> | |
| <u>Maximum Hourly Fuel Use (units):</u> | |
| <u>Monthly Fuel Use (units):</u> | |
| <u>January:</u> | |
| <u>February:</u> | |
| <u>March:</u> | |
| <u>April:</u> | |
| <u>May:</u> | |
| <u>June:</u> | |
| <u>July:</u> | |
| <u>August:</u> | |
| <u>September:</u> | |
| <u>October:</u> | |
| <u>November:</u> | |
| <u>December:</u> | |
| <u>Total Annual Fuel Use (units):</u> | |

^a This form should be completed for each fuel type used.

FIRING CONFIGURATION (Check the appropriate type)

Tangential Fired Horizontally Fired Vertically Fired Pulverized Coal Fired

Dry Bottom Wet Bottom

Cyclone Furnace

Spreader Stoker Uncontrolled Controlled

Overfeed Stoker Uncontrolled Controlled

Underfeed Stoker Uncontrolled Controlled

Hand-fired Units

POLLUTION CONTROL EQUIPMENT (Enter control efficiency and source of information)

ESP:

Baghouse:

Wet Scrubber:

Dry Scrubber:

Spray Dryer:

Cyclone:

Other:

| FUEL ANALYSIS | COMMENTS |
|--|-----------------|
| Sulfur Content (S): | |
| Ash Content: | |
| Nitrogen Content (N): | |
| Lead Content (Pb): | |
| Mercury (Hg): | |
| Others: | |
| Higher Heating Value (HHV in Btu/lb): | |
| Reference (Attach Analysis if Available): | |
| STACK INFORMATION: | |
| Stack ID: | |
| Unit ID: | |
| Stack (Release) Height (feet): | |
| Stack Diameter (inch): | |
| Stack Gas Temperature (°F): | |
| Stack Gas Velocity (ft/sec): | |
| Stack Gas Flow Rate (ascf/min): | |
| Do Other Sources Share This Stack (Y/N): (If yes, include Unit IDs for each): | |
| Site-specific Stack Sampling Report Available (Y/N): | |
| Reference (Include Full Citation of Test Reports Used): | |

EMISSION ESTIMATION RESULTS

Unit ID: _____

Fuel Type: _____

| Pollutant | Emission Estimation Method ^a | Emissions | Emissions Units | Emission Factor ^b | Emission Factor Units | Comments |
|--|---|-----------|-----------------|------------------------------|-----------------------|----------|
| VOC | | | | | | |
| NO _x | | | | | | |
| CO | | | | | | |
| SO ₂ | | | | | | |
| PM ₁₀ | | | | | | |
| Total Particulate | | | | | | |
| Hazardous Air Pollutants (list individually) | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

^a Use the following codes to indicate which emission estimation method is used for each pollutant:
 CEMS/PEM = CEMS/PEM
 Stack Test Data = ST
 Fuel Analysis = FA

^b Where applicable, enter the emission factor and provide the full citation of the reference or source of information from where the emission factor came. Include edition, version, table, and page numbers if AP-42 is used.